

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for preparing an organosilicate polymer comprising the steps of:

i) mixing a thermally decomposable organic silane compound represented by the following Chemical Formula 1, and a silane compound or a silane oligomer selected from the group consisting of compounds represented by the following Chemical Formula 2, Chemical Formula 3, and Chemical Formula 4; and

ii) adding water and a catalyst thereto, and conducting hydrolysis and condensation:



wherein

R^1 and R^3 are independently a hydrogen, fluorine, aryl, vinyl, allyl, or linear or branched C1-4 alkyl unsubstituted or substituted with fluorine;

R^2 and R^4 are independently an acetoxy, hydroxyl, or linear or branched C1-4 alkoxy;

L is polyalkyleneoxide; and

p and q are respectively an integer of 0 to 2;



wherein

R^5 is independently a hydrogen, fluorine, aryl, vinyl, allyl, or linear or branched C1-4 alkyl unsubstituted or substituted with fluorine;

R^6 is independently an acetoxy, hydroxyl, or linear or branched C1-4 alkoxy; and

x is an integer of 0 to 2,



wherein

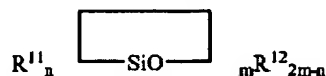
R^7 and R^9 are independently a hydrogen, fluorine, aryl, vinyl, allyl, or linear or branched C1-4 alkyl unsubstituted or substituted with fluorine;

R^8 and R^{10} are independently an acetoxy, hydroxyl, or linear or branched C1-4 alkoxy;

M is C1-6 alkylene or phenylene; and

y and z are respectively an integer of 0 to 2,

[Chemical Formula 4]



wherein

R^{11} are independently a hydrogen, fluorine, aryl, vinyl, allyl, or linear or branched C1-4 alkyl unsubstituted or substituted with fluorine;

R^{12} is independently a hydroxy, or a linear or branched C1-4 alkoxy; and m and n are respectively an integer of 3 to 10,

wherein the organosilicate polymer has a dielectric constant of less than about 2.21.

2. (Previously Presented) The method for preparing an organosilicate polymer according to claim 1, wherein the thermally decomposable organic silane compound is selected from the group consisting of bis-methyldimethoxysilylpropyl polypropyleneoxide, a bis-trimethoxysilylpropyl(polyethyleneoxide-b-polypropyleneoxide-b-polyethyleneoxide), and a mixture thereof.

3. (Previously Presented) The method for preparing an organosilicate polymer according to claim 1, wherein the weight average molecular weight of the polyalkyleneoxide is from 300 to 100,000.

4. (Canceled)

5. (Canceled)

6. (Previously Presented) An organosilicate polymer prepared by the method according to claim 1, wherein the thermally decomposable organic silane compound represented by the Chemical Formula 1, and the silane compound or the silane oligomer selected from the group consisting of compounds represented by the Chemical Formula 2, Chemical Formula 3, and Chemical Formula 4 are connected with a covalent bond.

7. (Previously Presented) A coating composition for forming an insulating film, which comprises:

- a) an organosilicate polymer according to claim 6; and
- b) an organic solvent.

8. (Withdrawn) A method for manufacturing a low dielectric insulating film for a semiconductor device, which comprises the steps of: a) providing a solution of a coating composition for forming an insulating film comprising: i) an organosilicate polymer comprising a thermally decomposable organic silane compound that is capped with silane compounds at both its ends, and a silane compound or silane oligomer, and ii) an organic solvent ; b) coating the a) solution on a substrate of a semiconductor device to form an insulating film ; and c) drying and firing the b) coated insulating film.

9. (Withdrawn) An insulating film for a semiconductor device prepared by the method of claim 8.

10. (Withdrawn) A semiconductor device comprising an insulating film for a semiconductor device prepared by the method of claim 8.